

The Animas River Stakeholders Group is a collaborative effort involving a wide range of public and private interests whose mission is improving water quality and aquatic habitats in the Animas Watershed in southwestern Colorado. The group is committed to an interactive, open forum where all interested parties are involved in the design and implementation of a watershed plan.

Activities include collecting and consolidating river monitoring data, assessing the impact of contaminants and channel modifications on aquatic life, evaluating the feasibility of cleanup actions and formulating plans for improvement, and if necessary, implementing and assisting with remediation activities.

COMMUNITY-BASED DECISION MAKING IS:

- ✓ A creative approach to solving environmental problems.
- ✓ Everyone working together to identify environmental problems and taking action to solve them.



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How Can You Help?

The issues in the Upper Animas Watershed can best be addressed by the community taking the lead in identifying solutions and working to make them happen.

- ✓ Tell us your views and how we can assist you.
- ✓ Be supportive of the process and the efforts of the volunteers involved.

Join us for the Animas River Stakeholders meetings on the third Thursday of most months in the Silverton Town Hall. The Stakeholders Group includes representatives from: elected officials; mining companies; environmental groups; local, state and federal government agencies; and local interests such as the Historical Society and Southwestern Water Conservation District.

For further information on how you can become involved in the Animas River Stakeholders Group or if you would like to be on our mailing list, please contact:

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Participants List:

Animas River Stakeholders Group
Colorado Division of Public Health
and the Environment
Colorado Division of Minerals and Geology
Colorado Division of Wildlife
Colorado Geological Survey
Colorado River Watch
Durango, City of
Durango and Silverton Narrow Gauge Railroad
Echo Bay Mines Ltd.
Friends of the Animas River
Gold King Mines
Little Nation Mining
Mining Remedial Recovery Co.
OSIRIS Gold
River Watch Network, Inc.
Root and Norton Assayers
St. Paul Lodge
San Juan County Commissioners
San Juan County Historical Society
Silver Wing Co. Inc.
Silverton, Town of
Southern Ute Tribe
Southwest Colorado Water Conservation District
Sunnyside Gold Corporation
Tusco
U.S. Bureau of Land Management
U.S. Bureau of Reclamation
U.S. Corps of Engineers
U.S. Environmental Protection Agency
U.S. Forest Service
U.S. Geological Survey



*"Committed to improving the
quality of the Animas River"*

Upper Animas Watershed Update

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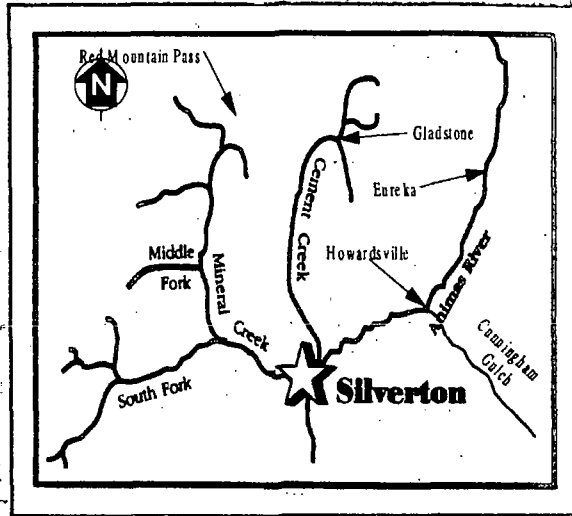


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Community
Based
Decision-
Making

Upper Animas Watershed

The Upper Animas Watershed is located in the San Juan Mountains of southwestern Colorado, formed by these streams: Mineral Creek, Cement Creek, and the Upper Animas.



These three tributaries join to form the Animas River at the town of Silverton. In the late 1800s miners discovered this mineral-rich, mountainous region. Historically, mining was responsible for both economic development and environmental degradation. Heavy metals such as zinc, cadmium, copper, and lead from mining activities and natural sources threaten the environment and possibly human health. The Upper Animas Watershed is seeing a tremendous amount of activity to define problems and take action where appropriate. The Department of the Interior recently selected the Animas as one of two national model watersheds for the Abandoned Mined Land Initiative. The watershed approach uses a three-step process of monitoring, feasibility and site characterization, and implementation.

Monitoring

The watershed contains hundreds of abandoned mine-related sites; some of them contribute to instream metal loads. Water-quality data is being collected by numerous Animas River Stakeholders Group (ARSG) participants, some of which includes:

- A local student River Watch program;
- The U.S. Geological Survey (USGS);
- The Colorado Division of Minerals and Geology (CDMG);
- Sunnyside Mine - Echo Bay;
- The U.S. Bureau of Reclamation (BOR);
- U.S. Bureau of Land Management (BLM);
- The U.S. Forest Service (USFS);
- The U.S. Environmental Protection Agency (EPA); and
- The Colorado Division of Wildlife (DOW).

Feasibility and Site Characterization

The ARSG will evaluate sites throughout the watershed:

- For feasibility of cleanup, researching the processes that work best in this area; and
- To prioritize those sites for possible cleanup through a basin-wide, cost-effective remediation plan in cooperation with land owners.

The stakeholders approach this task with an emphasis on the preservation of both cultural and naturally significant sites.

Implementation

Sunnyside Gold, a subsidiary of Echo Bay Mines, has cleaned up several sites in the Upper Animas Watershed. The remediation is part of a negotiated settlement with the State of Colorado which includes plugging and flooding the Sunnyside Mine. Gold King Mines put in diversions around three dumps and capped one. Other stakeholders have also led the way in implementing cleanups on their own properties.

Mineral Creek

Source characterization efforts have been initiated within the subwatersheds, beginning with Mineral Creek in 1995, then Cement Creek, and finally in the Upper Animas sub-basin. Results to date indicate during low flow conditions over 70 percent of the zinc loading in Mineral Creek originates from the area around Red Mountain Pass, which includes the Kohler/Longfellow site.

Based upon the characterization data, as well as technical and regulatory considerations, five sites were identified by the ARSG as priority sites for drainage and hydrologic control projects. This involves channeling water away from waste piles, and possible removal of certain piles.

Proposed mine drainage treatment projects have been delayed because of liability issues under the Clean Water Act. The Western Governors Association has assembled support for a "Good Samaritan Clause", an amendment to the Clean Water Act, which would help minimize liability exposure when a third party, such as ARSG, enters an abandoned site to make environmental improvements.

Cement Creek

In 1996 and 1997, the USGS conducted salt tracer studies to identify metal loadings and the sources of groundwater flow in Cement Creek and the Upper Animas from Cement Creek to Elk Park. The Colorado Division of Minerals and Geology has completed source area data collection of Cement Creek for characterization and feasibility. Data analysis and site prioritization will be completed in 1998.

Sunnyside Gold Corporation plugged the Sunnyside Mine portal and is treating the upstream waters of Cement Creek. The company removed tailings in the Gladstone area in accordance with its Mined Land Reclamation Permit.

Upper Animas

Monitoring of the Upper Animas from Howardsville to Silverton and from Cement Creek to Elk Park was conducted in the late summer and fall of 1997. Feasibility and site characterization monitoring will be completed for areas above Eureka in 1998.

A special agreement between Sunnyside Gold and EPA provided for the historic preservation of the Mayflower Mill. Thousands of tons of mine tailings have been removed from the floodplain in two locations and placed in a permanent repository in the area.